

THE DISTRIBUTION OF *TANTILLA UTAHENSIS* BLANCHARD¹

Wilmer W. Tanner² and Benjamin H. Banta³

Tantilla utahensis was originally described by Blanchard (1938: 372-3), based on a few specimens from southwestern Utah and east central California. Since then there has been uncertainty as to its distributional limits. The occurrence of known populations in Utah and California with no authentic records from Nevada left a hiatus in the distribution which seemed artificial. Recent field work in the Nevada Atomic Test Site as well as in California and Utah has not only extended the range of *T. utahensis* in California and Utah, but has also provided specimens from southern Nevada, thus bridging the widely separated populations in Utah and California.

The first record of this species was published by Van Denburgh (1922:880), who listed it as *Tantilla nigriceps*, based upon a specimen in the collection of the California Academy of Sciences taken by V. M. Tanner at Saint George, Washington County, Utah. This specimen became the holotype for *T. utahensis* (Blanchard, *loc. cit.*; Slevin and Leviton, 1956:549). V. M. Tanner (1927:57) and Woodbury (1928:21 and 1931:107-8) listed a *Tantilla* for southwestern Utah, but also referred it to *Tantilla nigriceps*.

More recently Tanner (1954:92-4) extended the range in Utah (to central Kane County) and reported a record for northern Arizona. Since this report *T. utahensis* has been found at Star Spring, on the southeast slope of Mount Hilliar (elevation 6,000 feet), Garfield County, Utah. This record extends the range approximately 100 miles to the northeast.

Banta (1960:11) reported a second specimen of *T. utahensis* from Inyo County, California (Saline Valley), extending the range slightly to the north in California, and indicating a wider distribution in the state of California.

During the years 1959-1962, the Ecological Field Studies conducted at the Nevada Atomic Test Site,⁴ Nye County, Nevada, have secured in buried-can pitfall traps two specimens of *Tantilla utahensis* from the western edge of Yucca Flat. These specimens (BYU 17922-3), plus the report by Stebbins (1958:2) of the species' occurrence in the Charleston Mountains, Clark County, definitely establishes the presence of this species in Nevada. These records also indicate that the range of *T. utahensis* is widespread (Fig. 1) and not divided into small widely-separated population pockets as suggested by Stebbins (1954:504).

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2. Department of Zoology and Entomology, Brigham Young University, Provo, Utah.

3. California Academy of Sciences, San Francisco 18, California.

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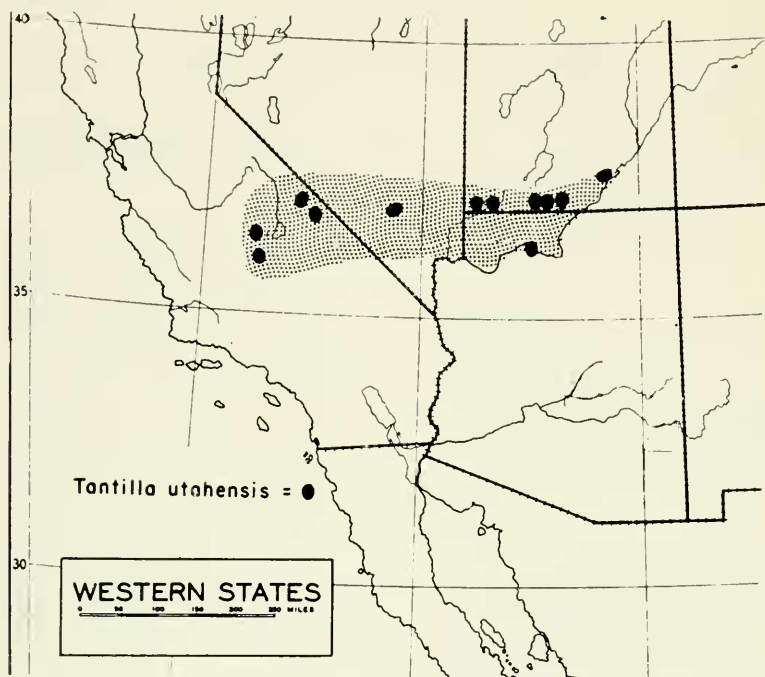


Fig. 1. Distribution of *Tantilla utahensis* in California, Nevada, Utah and Arizona.

Previous concepts generally implied that this species was restricted to the Lower Sonoran life zone (Tanner 1935:267); however, this is now obviously not the case. Elevation records are now known to range from approximately 2,500 feet in the southern part of its range to 6,000 feet in south-central Utah. Data available suggest that distribution is perhaps more dependent upon food (availability of small arthropods) and soil conditions (rocky foot hills and rocky alluvial fans) than on a restricted elevation or a specific plant community.

We have seen 41 specimens of *utahensis*, a series many times larger than others previously examined. In both scalation and color they are uniform. In only the ventrals and caudals are there noticeable variations beyond the limits set in the original description. These are as follows: ventrals, males 153-160, females 162-174; caudals, males 62-70, females 57-64.

Attention should also be called to the narrow light nape band which is visible in some specimens of *utahensis*. It is more clearly seen in live snakes as a narrow band (about one-half scale wide) along the posterior edge of the black head and nape spot. In many specimens the body color and light nape band are so well blended that magnification is needed to indicate the presence of the narrow light band.

The two key characters (number of ventrals and amount of

black cap extending onto dorsals) used for separating *utahensis* from the two allopatric species (*atriceps* in Arizona, and *eiseni* in California) are actually close in these three species, and although we have not seen sufficient material to justify a conclusion, we suspect that there is a closer affinity between these three species (*atriceps*, *eiseni*, and *utahensis*) than has previously been suggested. This is indicated in Table 1.

Table 1. Comparison of Key Characters in Three Allopatric Species of *Tantilla*.

Character	Sex	<i>utahensis</i>			<i>eiseni</i> *			<i>atriceps</i> *		
		No.	Range	Mean	No.	Range	Mean	No.	Range	Mean
Ventrals	M	16	153-160	156.7	19	164-175	169	30	130-147	142
	F	21	162-174	166.2	16	169-182	178	12	145-157	150
	M	13	62-70	66.0	19	58-69	66	30	54-70	63
Caudals										
	F	18	57-64	60.16	17	53-67	60	12	51-64	57

*Includes the data presented by Blanchard (1938:376) and Klauber (1943:73).

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